

WHAT IS CLAIMED IS:

1. A display writer for writing on a light writable display of the type having a layer of cholesteric liquid crystal material disposed between two conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the cholesteric liquid crystal in response to an image wise pattern of light, the display writer comprising:

- a) a flash lamp;
- b) a reflective light modulator for modulating light from the flash lamp an image wise pattern;
- c) optics for directing the image wise modulated light onto the light writable display; and
- d) means for applying an electrical field to the conductors of the display in conjunction with activation of the flash lamp.

2. The display writer claimed in claim 1, wherein the flash lamp is a short arc flash lamp having an arc less than 3mm.

3. The display writer claimed in claim 1, wherein the flash lamp includes a reflector for directing infrared and visible light to the reflective light modulator.

4. The display writer claimed in claim 1, wherein the optics includes collimating optics between the flash lamp and the reflective light modulator, and projection optics between the digital micro-mirror light modulator and the display.

5. The display writer claimed in claim 4, wherein the optics transmit both visible and infra red light.

6. The display writer claimed in claim 5, wherein the collimating optics include an integrating rod for integrating both visible and infra red light.

7. The display writer claimed in claim 1, wherein the reflective light modulator modulates both visible and infra red light.

8. A method of writing on a light writable display of the type having a layer of cholesteric liquid crystal material disposed between two conductors, the cholesteric liquid crystal material having multiple stable optical states at zero electrical field; and a light absorber for forming an image wise thermal pattern in the cholesteric liquid crystal sufficient to change the optical state of the cholesteric liquid crystal in response to an image wise pattern of light, comprising:

- a) providing a display writer having a flash lamp, a reflective light modulator for modulating light from the flash lamp an image wise pattern, optics for directing the image wise modulated light onto the light writable display; and means for applying an electrical field to the conductors of the display; and
- b) sending an image to the reflective light modulator; and
- c) applying the electrical field to the conductors of the display in conjunction with the discharge the flash lamp to write the image on the display.

9. The method claimed in claim 8, wherein the flash lamp is a short arc flash lamp having an arc less than 3mm.

10. The method claimed in claim 8, wherein the flash lamp includes a reflector for directing infrared and visible light to the reflective light modulator.

11. The method claimed in claim 8, wherein the optics includes collimating optics between the flash lamp and the reflective light modulator, and projection optics between the digital micro-mirror light modulator and the display.

12. The method claimed in claim 11, wherein the optics transmit both visible and infra red light.

13. The method claimed in claim 11, wherein the collimating optics include an integrating rod for integrating both visible and infra red light.

14. The method claimed in claim 8, wherein the reflective light modulator modulates both visible and infra red light.